

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte STEVE A. PLATT

Appeal No. 2006-0848
Application No. 09/981,231

ON BRIEF

MAILED

MAY 19 2006

U.S. PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before JERRY SMITH, SAADAT, and MACDONALD, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 9, 10, 15-19, 24-28, 39, 41-45, 50-57, 71, 72 and 74. Pending claims 1-8, 11-14, 20-23, 29-37, 40, 46-49, 58-70 and 73 have been indicated by the examiner to contain allowable subject matter. Claim 38 has been cancelled.

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The disclosed invention pertains to a wind powered generator and a tower for supporting such a wind powered generator.

Representative claim 9 is reproduced as follows:

9. A wind powered generator support assembly for supporting a wind powered generator comprising:

a tower; and

a vertical elevator on the tower, the elevator including a track and a carriage configured to move along the track, the carriage including a pivot ring configured to accept the wind powered generator therein for allowing the wind powered generator to rotate about the carriage;

wherein the vertical elevator is configured to vertically lift the wind powered generator with the carriage to position the wind powered generator at a top of the tower.

The examiner relies on the following references:

Salter	4,110,631	Aug. 29, 1978
Abe	4,311,434	Jan. 19, 1982
Barnes	4,374,631	Feb. 22, 1983
Fergusson	5,244,346	Sep. 14, 1993
Douthit	6,239,507	May 29, 2001
Willis et al. (Willis)	6,278,198	Aug. 21, 2001

The following rejections are on appeal before us:

1. Claims 9, 10, 15, 17-19, 24, 26 and 71 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Abe.

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2. Claims 18 and 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the disclosure of Willis.

3. Claims 16 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Abe in view of Douthit.

4. Claims 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Abe in view of Barnes.

5. Claims 39, 41-45, 50, 52 and 54-56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Salter in view of Abe.

6. Claim 51 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Salter in view of Abe and Douthit.

7. Claim 53 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Salter in view of Abe and Barnes.

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8. Claim 57 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Abe in view of Ferguson.

9. Claims 72 and 74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Abe in view of Barnes.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

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It is our view, after consideration of the record before us, that the evidence relied upon supports the examiner's rejection of claims 18, 19, 26-28, 39, 41, 43 and 71, but does not support the rejection of claims 9, 10, 15-17, 24, 25, 42, 44, 45, 50-57, 72 and 74. Accordingly, we affirm-in-part.

We consider first the rejection of claims 9, 10, 15, 17-19, 24, 26 and 71 as being anticipated by the disclosure of Abe. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner has indicated how the invention of these claims is deemed to be fully met by the disclosure of Abe [answer, page 4].

Claims 9, 15 and 17

Appellant argues that the examiner identifies the mount 12 and the supporting member 6 of Abe as the claimed carriage, but these elements can not comprise the claimed carriage because they are separate from each other. With this interpretation, appellant argues that Abe does not disclose a carriage including a pivot ring configured to accept a wind powered generator. Appellant also argues that the carriage in Abe is not configured to be accepted within the bearing 17. Appellant argues that Abe does not disclose a pivot ring and a pivot ring does not necessarily flow from the teachings of Abe [brief, pages 11-14].

The examiner responds that claim 9 does not require that the carriage comprise non-separable elements or that the shaft not be part of the carriage. The examiner also responds that Abe discloses a single thrust bearing 17, and that the artisan would recognize that this bearing is comprised of circular racers encompassing the bearing balls or rollers. The examiner, therefore, finds that bearing 17 meets the claimed pivot ring [answer, pages 12-13].

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Appellant responds that the thrust bearing 17 of Abe is not configured to accept anything therein because it is locked between the supporting member 6 and the base 9 and, therefore, does not accept the wind powered generator therein. Appellant also responds that Abe only discloses two spaced apart bearings 17 that do not form a pivot ring as claimed nor does a pivot ring necessarily flow from the teachings of Abe [reply brief, pages 3-5].

We will not sustain the examiner's rejection of claims 9, 15 and 17 as anticipated by Abe. Claim 9 recites an elevator that includes a track and a carriage configured to move along the track. The carriage of an elevator is understood to mean the element that moves along the track. The examiner has read the carriage of claim 9 on the liftable mount 12 of Abe, which does in fact move along the track 1a, and on the supporting member 6, which does not move along the elevator track 1a. We find that the supporting member 6 of Abe can not form part of the carriage

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because it does not move along the track of the elevator. Since supporting element 6 is not part of the carriage, the carriage of Abe also does not include a pivot ring as claimed. We also agree with appellant that there is no evidence on this record, other than the examiner's bare assertion, that the thrust bearing 17 of Abe is a pivot ring as claimed.

Claim 10

Since claim 10 depends from claim 9, we also do not sustain the examiner's rejection of claim 10 as anticipated by Abe.

Claims 18, 26 and 71

Appellant argues that Abe does not disclose a wind powered generator that can be removably placed within a carriage and that can be removed from within a carriage. Appellant asserts that mount 12 in Abe does not have an area for accepting anything, much less the nacelle 2, the rotor head 4 or the rotor blade 5. Appellant argues that since the examiner has identified mount 12 and supporting member 6 as the carriage, the carriage would have to be destroyed in order to remove the wind powered generator [brief, pages 14-15].

The examiner responds that claim 18 does not require that the wind powered generator be removable without disassembling the carriage structure. The examiner notes that Abe teaches that the nacelle may be replaced after being lowered to the tower bottom, which inherently involves replacing the generator [answer, pages 13-14].

We will sustain the examiner's rejection of claims 18, 26 and 71 as anticipated by Abe. Although we agree with appellant's argument that the examiner's reading of the claimed carriage on supporting member 6 and liftable mount 12 is incorrect, we nevertheless find that Abe discloses all the elements of these claims. Specifically, Abe discloses a vertical tower including a vertical elevator having a track 1a and a carriage 12 for movement along the track. Abe also discloses a wind powered generator including airfoils 5 and an electric generator within the nacelle 2. Finally, Abe discloses that the wind powered generator can be removably placed within the mount 12 (placed on seat 15 to slide along rails 16) after the tower has been erected

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and wherein the wind generator can be removed from the mount 12 after the carriage has been lowered. Therefore, we agree with the examiner that the invention of these claims is fully met by the disclosure of Abe.

Claim 19

Appellant argues that Abe does not disclose a carriage having grooves [brief, page 16]. The examiner's rejection had indicated that the carriage 12 of Abe has protrusions which inherently include grooves in order to accept the strips 1a when the term grooves is given its broadest reasonable interpretation [answer, page 13]. Appellant responds that the term groove as used in the claim is not a tubular passage in view of appellant's specification and as interpreted by one skilled in the art [reply brief, page 5].

We will sustain the examiner's rejection of claim 19 as anticipated by Abe. We agree with the examiner that the unnumbered protrusions shown in figure 3 of Abe, that grasp the

rails 1a, are part of the carriage and are grooves configured to accept the vertical strips 1a when the term "grooves" is given its broadest reasonable interpretation.

Claim 24

In addition to arguments considered above, appellant argues that Abe does not disclose a carriage including a pivot ring configured to accept a wind powered generator therein [brief, page 16-17].

We will not sustain the examiner's rejection of claim 24 as anticipated by Abe. The carriage of Abe (mount 12) does not include a pivot ring. The carriage as identified by the examiner (mount 12 plus support member 6) is not properly identified as an elevator carriage for reasons discussed above with respect to claim 9.

We now consider the rejection of claims 18 and 19 as being anticipated by the disclosure of Willis. The examiner has indicated how the invention of these claims is deemed to be fully met by the disclosure of Willis [answer, pages 4-5]. With respect to claim 18, appellant argues that although Willis shows

that the wind turbine 16 can be removed from carriage 32, it does not disclose that the wind turbine 16 can be removably placed within carriage 32. With respect to claim 19, appellant argues that Abe does not disclose that mount 12 has any grooves or grooves accepting vertical strips [brief, pages 18-20]. The examiner responds that since generator 16 in Willis is removed from carriage 32, it clearly is removably placed within the carriage. The examiner also responds that Willis shows carriage 32 having grooves 44 and 46 sliding on vertical strips 28 and 30, respectively [answer, page 15]. Appellant responds that figure 7 of Willis does not necessarily show that the turbine 16 is removably placed within the carriage 32 [reply brief, pages 6-7].

We will sustain the examiner's rejection of claims 18 and 19 as anticipated by Willis. Appellant's argument that Willis teaches that the wind turbine 16 can be removed from carriage 32, but does not teach that the wind turbine can be removably placed

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within the carriage makes no sense. If the wind turbine 16 is on the carriage 32 and is removable, then it has to have been removably placed on the carriage. That is, it is removable from the carriage. With respect to the grooves of claim 19, appellant's arguments are directed to Abe rather than Willis. We agree with the examiner that Willis teaches grooves as claimed.

We now consider the various rejections of the claims under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in

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the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellant have been considered in this decision.

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Arguments which appellant could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

We consider first the rejection of claims 16 and 25 based on Abe and Douthit. Since claim 16 depends from claim 9, and since Douthit does not overcome the deficiencies of Abe with respect to claim 9 that were discussed above, we do not sustain the examiner's rejection of claim 16. With respect to claim 25, appellant argues that there is no motivation for substituting the turntable 16 of Douthit for the mount 12 of Abe because it would not allow the nacelle 2, rotor head 4 or rotor blades 5 of Abe to be raised or lowered. Appellant also argues that such a modification is more than a mere "design choice" [brief, pages 22-23]. The examiner responds that raising and lowering the nacelle of Abe furnished with a rotary connector would involve only routine skill in designing the wiring [answer, pages 15-17]. Appellant responds that the examiner admits that the proposed combination would require a further modification to make the system work [reply brief, page 7].

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We will not sustain the examiner's rejection of claim 25. As we noted above, the carriage of Abe only reads on the mount 12. The electric generator in Abe is disclosed as being within the nacelle 2 [column 2, lines 54-59]. Claim 25 recites that the carriage includes a plurality of contacts to contact a rotating portion of the wind powered generator. We can find no motivation for the artisan to include a plurality of contacts on the mount 12 of Abe since the generator is located within the nacelle 2 and since all the wiring is easily enclosed within nacelle 2.

We now consider the rejection of claims 27 and 28 based on Abe and Barnes. Appellant's arguments with respect to these claims consist of nothing more than reciting what the claims cover and noting that these claims depend from claim 18. Since we have sustained the rejection of claim 18, and since appellant has made no persuasive arguments in rebuttal, we also sustain the examiner's rejection of claims 27 and 28.

We now consider the rejection of claims 39, 41-45, 50, 52 and 54-56 based on Salter in view of Abe. The examiner has indicated how the invention of these claims is deemed to be rendered obvious by the collective teachings of Salter and Abe [answer, page 7].

Claims 39 and 43

Appellant argues that there is no motivation to modify the references in the manner proposed by the examiner because placing a generator upwind of the rotor in Salter would not work as well as the downstream generator of Salter. Appellant also argues that the examiner's motivation of improving the generator cooling is not a proper motivation [brief, pages 25-27]. The examiner responds that appellant's argument that an upwind generator would be less efficient is not supported by any evidence. The examiner also asserts that the location of the generator upstream or downstream of the airfoils would have no effect on the performance of the generator and that the modification is an obvious rearranging of parts citing In re Japikse [answer, pages 17-19]. Appellant responds that the examiner has failed to

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establish a prima facie case of obviousness. Appellant reiterates that the modification proposed by the examiner would render the wind powered generator of Salter useless. Appellant also asserts that the examiner has failed to demonstrate that the facts in this case are similar to the facts in Jakipse. Finally, appellant argues that Salter does not disclose anything that rotates within the lever arm 33 or the support arm 36 so that any combination of Salter and Abe would not include this feature [reply brief, pages 8-10].

We will sustain the examiner's rejection of claims 39 and 43 as unpatentable over Salter and Abe. The (electric) generator of Salter is the drum 15 and its associated elements which produce electric power when the drum is sufficiently rotated. As can be seen in figure 1 of Salter, the drum 15 simply has to be in contact with each of the rims 13. We agree with the examiner that the electric power producing elements associated with the drum can be located upwind or downwind of the rotating spars and such location would have no effect on the functioning of the

airfoils 19. In other words, the entire assembly of figure 1 is not turned around, but only the generator 15 would be moved to the other side of the rotating rotors 12. Thus, appellant's argument that the airfoils would become useless is not agreed with. Although we agree with appellant that the examiner's reason for moving the generator in Salter is not supported within the references, we agree, nevertheless, that the artisan would have recognized that the location of the generator 15 upwind or downwind of the spars would have no effect on the performance of the wind generator of Salter.

Claim 41

Appellant argues that the prior art of record does not teach or suggest a wind powered generator including a rod configured to be within a housing, at least six spars connected to the rod, and an electrical generator connected to the housing [brief, page 27]. The examiner responds that Salter shows the generator 16 connected to the housing 33, 36 [answer, page 19]. Appellant responds that Salter and Abe do not disclose a rod configured to rotate within a housing [reply brief, page 10].

We will sustain the examiner's rejection of claim 41 as unpatentable over Salter and Abe. The rotors 12 of Salter clearly rotate about a rod connected to hub 18, and the electric power generator (drum 15 and associated components) is connected to the housing of the rotor as claimed.

Claim 42

Appellant argues that the prior art of record does not teach or suggest a vertical leg connected to a housing, wherein the housing is connected to an end of the vertical leg at a position off center from an axis of a vertical leg [brief, page 27]. The examiner responds that Salter shows the generator 16 connected to the housing 33, 36 by a vertical leg 41 [answer, page 19]. Appellant responds that Salter does not show the connection being at a position off center from the axis of the vertical leg [reply brief, page 11].

We will not sustain the examiner's rejection of claim 42 as unpatentable over Salter and Abe. We can find nothing in this record by the examiner which addresses the claimed feature of the

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housing being connected to an end of the vertical leg at a position off center from an axis of the vertical leg. Therefore, the examiner has failed to establish a prima facie case of the obviousness of claim 42.

Claim 44

Appellant argues that the proposed combination does not include any tower including an elevator or a carriage as such is not disclosed in Salter nor added to the teaching of Salter [brief, page 28]. Appellant also argues that there is no motivation for the proposed combination [reply brief, page 11]. The examiner relies on the arguments made with respect to claim 39 [answer, page 19].

We will not sustain the examiner's rejection of claim 44 as unpatentable over Salter and Abe. We can find nothing in this record that shows that the examiner has ever addressed the specific elements of claim 44. The examiner's rejection of the group of claims rejected on Salter and Abe appears to only address the features of claim 39. Therefore, the examiner has failed to establish a prima case of obviousness of claim 44.

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Claims 45, 50, 52 and 54-56

Since these claims depend from claim 44, we do not sustain the examiner's rejection of these claims for the same reasons discussed above with respect to claim 44.

We now consider the rejection of claim 51 based on Salter, Abe and Douthit. Since claim 51 depends from claim 44, and since the examiner never established a prima facie case of the obviousness of claim 44, we do not sustain the examiner's rejection of claim 51.

We now consider the rejection of claim 53 based on Salter, Abe and Barnes. Since claim 53 depends from claim 44, and since the examiner never established a prima facie case of the obviousness of claim 44, we do not sustain the examiner's rejection of claim 53.

We now consider the rejection of claim 57 based on Abe and Ferguson. The examiner has indicated how the claimed invention is rendered obvious by the collective teachings of Abe and Ferguson [answer, page 10]. Appellant argues that the rejection

apparently uses teachings from Douthit without explaining which features are taught, and that the examiner provided no motivation for combining Ferguson with Abe. Appellant asserts that the combination would not be made because the nacelle 2 of Abe would not be able to be raised and lowered along the guides 1a of the tower 1. Finally, appellant argues that the proposed combination would not include an upper tower section and a lower tower section that is removably connected [brief, pages 34-35]. The examiner responds that the motivation for combining Abe with Ferguson is for the purpose of providing a self containing system that is easy to transport and install at site without the need of providing an additional crane or other hauling means [answer, page 20].

We will not sustain the examiner's rejection of claim 57 as unpatentable over Abe and Ferguson. Ferguson teaches a wind machine tower in which an upper section is telescopically located within a lower section. Thus, although the upper section can be extended to increase the height of the tower, there is no

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teaching that the upper section can be removed from the lower section. Appellant argues that the tower of Ferguson does not meet the claimed removably connected feature, and the examiner has never addressed this argument. Since the tower sections of Ferguson are telescopically connected, appellant has argued that an elevator can not move from the lower section to the upper section because the rails would not be aligned. The examiner has failed to address this argument as well. Therefore, on this record, we conclude that the examiner has failed to provide a persuasive case of unpatentability.

We now consider the rejection of claims 72 and 74 based on Abe and Barnes. The examiner has indicated how the claimed invention is rendered obvious by the collective teachings of Abe and Barnes [answer, pages 11-12]. Appellant argues that the applied prior art does not teach or suggest the claimed biasing member of claim 72 or the force lessening feature of claim 74 [brief, pages 36-37]. The examiner responds that the features

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upon which appellant relies are not recited in the claim [answer, page 21]. Appellant responds that the blade tip of Barnes is not biased as claimed, and that claim 74 does recite the feature argued in the brief [reply brief, page 15].

We will not sustain the examiner's rejection of claims 72 and 74 as unpatentable over Abe and Barnes. Based on our review of the record before us, the examiner has never addressed the claimed features relating to the biasing of the airfoils other than to assert that the references teach the claimed invention. The examiner has not identified any elements of the applied references that correspond to the claimed biasing member and cam member and how the sliding direction of the airfoils is taught by the applied prior art.

In summary, the examiner's anticipation rejections are sustained with respect to claims 18, 19, 26 and 71, but are not sustained with respect to claims 9, 10, 15, 17 and 24. The examiner's obviousness rejections are sustained with respect to claims 27, 28, 39, 41 and 43, but are not sustained with respect to claims 16, 25, 42, 44, 45, 50-57, 72 and 74. Therefore, the decision of the examiner rejecting claims 9, 10, 15-19, 24-28, 39, 41-45, 50-57, 71, 72 and 74 is affirmed-in-part.

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No time period for taking any subsequent action in connection
with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

Jerry Smith

JERRY SMITH)
Administrative Patent Judge)

MAHSHID D. SAADAT

MAHSHID D. SAADAT)
Administrative Patent Judge)

Allen R. MacDonald

ALLEN R. MACDONALD)
Administrative Patent Judge)

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) AND
) INTERFERENCES

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PRICE HENEVELD COOPER DEWITT
& LITTON, LLP
695 KENMOOR, S.E.
P.O. BOX 2567
GRAND RAPIDS, MI 49501